

WHAT IS CLAIMED IS:

1. Tape cutting-out equipment to wind and cut out tape supplied from a pancake in plural kinds of winding lengths on a reel, the equipment comprising:

5 a tape supplying device supplying the tape from said pancake P;
a tape winding device winding the supplied tape from said tape supplying device;

a memory unit memorizing position data of defect portions of the tape in said pancake;

10 a winding length deciding unit deciding a winding length of said tape based on the position data read out from said memory unit;

a cutting device cutting said tape; and

15 a cutting control unit controlling to make said cutting device cut said tape at a timing when said tape winding device winds tape of the winding length decided by said winding length deciding unit.

2. Tape cutting-out equipment according to claim 1, wherein when determining whether or not a defect portion exists in one kind of winding length and judging that no defect portion exists based on position data read from said memory unit, said winding length deciding unit decides the one kind
20 of winding length as the winding length next wound; and wherein when judging that a defect portion exists, said winding length deciding unit decides the winding length by determining whether or not a defect exists in a shorter other kind of winding length.

3. Tape cutting-out equipment according to claim 1, wherein said winding
25 length deciding unit calculates combinations of winding lengths in which tape can be wound without including a defect portion and with the least waste from

one pancake based on position data read from said memory unit, and decides the winding lengths.

4. Tape cutting-out equipment according to claim 3, wherein said winding length deciding unit calculates all combinations of winding lengths which are equal or less than a length from a defect to defect, compares among windable lengths in each combination calculated, and select a combination windable longest.

5. A tape production supporting apparatus to cut out tape without waste from a pancake, the apparatus comprising:

an input unit setting plural kinds of winding lengths scheduled to be produced in a production plan of a current day;

a memory unit memorizing position data of defect portions of tape in the pancake;

a computing unit calculating combinations of winding lengths which can be wound without including the defect portions and with the least waste, based on the position data read from said memory unit and the plural kinds of winding lengths set through the input unit;

a ratio computing unit obtaining a ratio of the tape usable from said one pancake based on the combinations of the winding lengths calculated by said computing unit;

an output unit outputting judgement results of said ratio computing unit.

6. A tape cutting method to cut out tape without waste from a pancake, the method comprising the steps of:

a calculation step calculating combinations of winding lengths which can be wound without including defect portions and with the least waste from

one pancake, based on plural kinds of winding lengths set in advance and position data of defect portions of tape in the pancake recorded in advance;

a ratio calculating step calculating a ratio of the tape usable from said one pancake based on the combinations of the winding lengths calculated by said calculation step; and

a tape cutting step deciding whether or not the pancake is usable based on said ratio calculating step, and cutting the tape from the pancake when the pancake is usable.

7. Tape cutting-out equipment according to claim 1, wherein said tape is a magnetic tape.

8. Tape cutting-out equipment according to claim 2, wherein said tape is a magnetic tape.

9. Tape cutting-out equipment according to claim 3, wherein said tape is a magnetic tape.

10. Tape cutting-out equipment according to claim 4, wherein said tape is a magnetic tape.

11. Tape cutting-out equipment according to claim 5, wherein said tape is a magnetic tape.

12. Tape cutting-out equipment according to claim 6, wherein said tape is a magnetic tape.

13. Tape cutting-out equipment according to claim 1, wherein said tape is an optical recording tape.

14. Tape cutting-out equipment according to claim 2, wherein said tape is an optical recording tape.

15. Tape cutting-out equipment according to claim 3, wherein said tape is an optical recording tape.

16. Tape cutting-out equipment according to claim 4, wherein said tape is an optical recording tape.

17. A tape cutting-out equipment according to claim 5, wherein said tape is an optical recording tape.

5 18. A tape cutting-out equipment according to claim 6, wherein said tape is an optical recording tape.